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April 26, 2002

VIA ELECTRONIC FILING

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

Re: Notice of *Ex Parte* Submission of VATM in CC Docket Nos. 99-273, 92-105, and 92-237

Dear Ms. Dortch:

Verband der Anbieter von Telekommunikations-und Mehrwertdiensten e.V. ("VATM") submits this *ex parte* filing reporting a submission of written materials subsequent to a meeting on April 22, 2002, with the following staff of the Competition Policy Division of the Wireline Competition Bureau: Michelle Carey, Chief; Gregory Cooke, Deputy Chief; Rodney McDonald, attorney-advisor; and Brett Siglin, intern. Troy Tanner and Axel Spies of Swidler Berlin Shereff Friedman, LLP, attended the meeting on behalf of VATM. At the meeting, the attendees discussed VATM's comments submitted on March 7, 2002 in this docket, but did not present any data or arguments not already reflected in VATM's written comments. However, subsequent to the meeting, additional information not in VATM's written comments was requested by Commission staff, and the attached e-mail was sent on April 23, 2002 to Brett Siglin. Therefore, VATM has attached this e-mail for submission into the record pursuant to the requirements of Section 1.1206(b)(1) of the Commission's *Ex Parte* Rules.

If you have any questions regarding this submission, please contact the undersigned.

Respectfully submitted,

Troy F. Tanner

Troy F. Tanner
Counsel for the VATM

Enclosure

From: Spies, Axel
Sent: Tuesday, April 23, 2002 11:36 AM
To: 'Brett Siglin'
Cc: Tanner, Troy
Subject: RE: Info re: price of enhanced DA services in Germany

Dear Brett:

I hope that this link is helpful re pricing in Germany (in Euro as of January 2002):
http://www.billiger-telefonieren.de/anbieter/auskunft/auskunft_festnetz.php3

It actually demonstrates that there are several companies offering DA services and compares the charges.

Re the U.S. please note pp. 33 to 35 of the attached document (pdf. file)- Frost & Sullivan survey.

Best regards,

AXEL SPIES

Providing a Smooth Transition from Live Operators to Automated Services Must be Accomplished to Maintain Net Income Growth

Operator costs for training, compensation, retention, and support are increasing. This is not a trend unique to the directory assistance market. Companies everywhere are experiencing an increase in their personnel cost structure. Directory assistance providers, however, can offset this by switching to an automated, voice activated system. Several companies are already automating some part of their service. The natural progression would be to automate the entire process. Searches by live operators can be conducted by computer. In fact, operator searches entail the operator entering search requirements into a computer database, and then turning the call over the automated voice response system. Very rarely now do operators read the listing results to the customer. Voice recognition software would take the live operator totally out of the business event.

While this may increase savings in the long run, it is uncertain that customers will appreciate the lack of human interaction. When listings are incorrect, as they would be with live operators, the customer is more likely to blame the mistake on automation and use an alternative method in the future. Call backs to fix incorrect results would also be eliminated, further widening the gaps in customer service levels.

Voice Portal Capability on the Internet Threatens Wireline Directory Assistance Convenience and Ease of Use Advantage

Voice portals, while still not a mainstream application, are emerging rapidly within Internet sites. When used on Internet directories, the new application allows users to search for listings simply by audibly stating the name and location of a business or person. This in effect, substitutes for the end user having to make callers pay for service directory assistance call. With most businesses having "always on" connections and more consumers purchasing DSL and cable modem service, the connection time barrier has been lifted. Users will be able to click onto the website and receive the information they need just as fast as if they called a wireline directory assistance provider. Voice portal's biggest threat to wireline service is that, because it is currently offered on a free service (Internet directory), it will only increase the popularity of Internet directories.

Market Engineering Analysis

The first step in the market engineering analysis process is to adhere to Frost & Sullivan's 12 Step Methodology. It is a rigorous and comprehensive process. Frost & Sullivan has refined its methodology over many years of experience, having reached a wide diversity of markets in many different life cycles - from embryonic to mature.

Frost & Sullivan's Market Engineering system:

- Focuses on challenges, problems, and needs of industry participants
- Is based on primary market research, not secondary or previously published research
- Is based on detailed, comprehensive "bottom up" data collection techniques
- Is based on measurements

The following steps briefly describe Frost & Sullivan's methodology for this project:

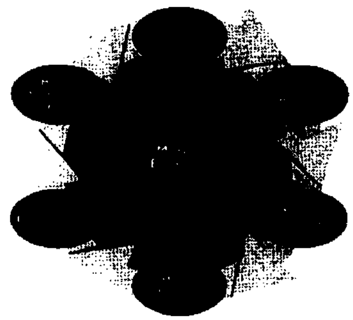
- Step 1: Define Market Problems, Needs, and Opportunities
- Step 2: Define Objectives and Goals of Research Project
- Step 3: Design Optimal Research Team
- Step 4: Launch Data Collection Phase
- Step 5: Select Interview Strategy and Design of Survey
- Step 6: Test the Survey Design
- Step 7: Conduct Primary Market Research
  - Cross Verification of Data
  - Use of Bottom-Up/Top-down Approach
- Step 8: Research Analysis: Finding Point "A"
- Step 9: Market Forecasting: Finding Point "B"
- Step 10: Develop Strategic Recommendations
- Step 11: Confirm Results with Quality Control
- Step 12: Market Monitoring and Customer Feedback Review

The end result of this process is a deliverable with concrete and relevant facts that can assist market participants to better understand their industry. Much of the information received and conclusions reached are summarized below in Chart 1.

CHART 1

Wireline Directory Assistance Services: Market Engineering Measurements (U.S.), 2000

Market Engineering Drives Market Strategy and Planning



Measurement Name	Measurement	Trend
Market age	Mature	Stable
Revenues	$3.38 billion	Up
Potential revenues (maximum future market size)	$3.69 billion	Up
Base year market growth rate	4.32 percent	Down
Forecast period market growth rate	1.26 percent	Down
Units (call volume for directory assistance searches)	5.67 billion	Down
Price Range (National Directory Assistance)	$0.29 to $1.99	Stable
Price Range (Local Directory Assistance)	$0.29 to $1.49	Stable
Price Sensitivity (for directory assistance searches)	Medium	Stable
Price Sensitivity (for call completion services)	High	Stable
Degree of Competition (national directory assistance)	High	Increasing
Degree of Competition (local directory assistance)	Medium	Increasing
Customer satisfaction	High	Stable
Customer loyalty	Medium	Decreasing
Market concentration (percent of base year market controlled by top three competitors)	Varies by Market Type	Decreasing

Source: Frost & Sullivan

MARKET AGE

The wireline directory assistance market is mature and beginning to transition towards a declining industry. Wireless and Internet directories will steal away wireline revenues throughout the rest of wireline directory's existence. Wireless directories offer the same accurate listings with the added convenience of mobility. Internet directories are going to improve upon their accuracy ratio to make their free searches worth the efforts of end users. There is nothing new about wireline directory assistance market. Any changes to increase call allowances or reduce prices will only lower overall market revenues. The only portion of directory assistance that will increase revenues is its call completion and other enhanced services portfolio. Call completion is a variable that can greatly increase market revenues, especially for national searches. Other enhanced services such as the provisioning of stock quotes, weather and traffic updates, movie listings, and restaurant and entertainment locators will not have any significant impact on overall market revenues.

Revenues and Demand

Revenues in 2000 were calculated to be $3.38 billion. This is an increase of over 4 percent from the previous year. Over the forecast period, the higher proportion of revenues and call volume will remain within local directory assistance market, but the national directory assistance market will begin to comprise a larger portion of the overall market. In 2000, the national directory market accounted for 37 percent of total revenues and 22 percent of market volume. By 2000, the amounts increased to 46 percent and 32 percent, respectively. Through 2007, the revenue Compound Annual Growth Rate (CAGR) will be 1.26 percent, reaching a level of $3.69 billion. The call volume will decrease from 5.67 billion in 2000 to 4.78 billion in 2007. This is a negative CAGR of 2.41 percent. Revenues will increase despite declining usage because the higher priced national directory searches will comprise a larger portion of the overall revenues.

Price Range and Sensitivity

The region supported by BellSouth has the lowest average national directory assistance service in the nation at 91 cents. The lowest average priced local region belongs to Verizon at 39 cents. Prices for national searches max out at $1.99 per call. Local searches typically do not surpass the $1.00 threshold, but the emergence of single number national directory assistance services that can also offer local searches has pushed the maximum price up to $1.49. Local search end users are less price conscious than national search end users. This is most likely because they generally receive a minimum amount of monthly call allowances. National directory end users do not receive call allowances, and therefore are more selective on their usage.

Additionally, because call completion service is not included in most national searches facilitated by ILECs, end users are less likely to use the service on national searches, than they are for local directory searches. Local call completion services, if not free, range from 5 cents in Texas to 50 cents in Florida. Fees for call completion services for national searches, if not part of the initial price ("00" INFO, 10-10-9000) can reach as high as $1.00 per call.

Competition among local directory assistance providers exists, but is not intense. Since ILECs usually own the databases that store the directory information, they have an advantage over all other competitors in their regional market. Also, the regional nature of local telecom provides each ILECs with its own area to control. For instance, SBC is not in competition with Verizon; and BellSouth is not in competition with Qwest. CLECs, however, are in competition with other CLECs and ILECs. They do not have a designated area of operation. They are in business in every state, and as such are in competition with SBC, Qwest, Verizon, and BellSouth. The degree of competition among local directory assistance providers is increasing.

Competition in the national directory assistance services market is high and is expected to increase. One source single number NDA products from WorldCom and AT&T are invading the national directory markets of ILECs. 10-10-9000 and 10-10-ATT-00 are products that are available to non AT&T and non WorldCom subscribers. They are largely less expensive than 1+NPA-555-1212 products and include the cost of call completion services. ILECs are successfully offering national directory assistance service to their local subscribers, but cannot provide call completion on every national search. This market will continue to become more competitive and possibly have more one source single number NDA products that will mirror those of AT&T and WorldCom.

Customer Feedback

End-users are largely satisfied with the service they receive from both local and national directory assistance providers. The accuracy levels reported by wireline providers are much higher than the levels achieved by Internet and print directories. Call completion is a value-added service that is gaining wide usage and acceptance.

Customer loyalty is wavering. There are many more directory assistance service alternatives than in the past. Even though wireline is much more accurate than print, and especially Internet directories, an increasing number of callers still use them. They are both free to use, and when a subscriber exhausts his/her free call allowances, they make an attractive alternative. Additionally, these two directory types generally provide the information that end users would call a business listing to determine. They offer addresses, hours of operations, directions, and sometimes a quick summary of the products or services available. The biggest factor in wavering customer loyalty is wireless communication. Wireless service provides end users with another directory assistance alternative. This alternative, however, is as reliable as wireline service. It is also priced comparable to wireline service, and is more convenient for people to use, as they do not have to be stationary to use the service. They may conduct a directory search from any location within their calling area.

Revenue Forecast

The wireline directory services market is in the midst of a significant growth stage. In 2000, market revenues totalled $3.38 billion, and are expected to grow through 2004. After that period, revenues are expected to have a negative growth rate through 2007. At the end of 2007, revenues should be approximately $3.69 billion. From 2000, this is a Compound Annual Growth Rate (CAGR) of 1.26 percent.

For the purposes of this study, wireline directory assistance consists of both local and national or long distance services. Wireline refers to the copper wires used to connect subscribers to the person or enterprise that they are calling. Revenues from wireless, Internet, and print directories are not included in this deliverable.

Revenues in the wireline directory assistance market include all monies received by the service providers from the provision and usage of local and national directory assistance services by commercial and consumer customers. Additionally, revenues from call completion services are also included in the market forecasts. National directory assistance revenues are generated for the provision of listing and call completion services, only. They do not include any long distance or toll revenues realized from carrying the conversation for the end user.

Figure 6 shows the total market revenues for the U.S. wireline directory assistance market.

FIGURE 6

Wireline Directory Assistance Services Market: Revenue Forecasts (U.S.), 1997-2007

Year	Revenues ($ Billion)	Revenue Growth Rate (%)
1997	2.95	---
1998	3.09	4.8
1999	3.24	4.9
2000	3.38	4.3
2001	3.52	4.1
2002	3.65	3.7
2003	3.77	3.3
2004	3.80	0.8
2005	3.78	(0.53)
2006	3.75	(0.79)
2007	3.69	(1.60)
Compound Annual Growth Rate (2000-2007): 1.26%		

Note: All figures are rounded; the base year is 2000. Source: Frost & Sullivan

Decreasing revenue growth rates can be partly attributed to the influence of wireless and Internet directories. Their prices are most often less expensive per search than wireline searches. Internet directories, while not as accurate as other directory products; are free to most users, offer unlimited searches to most users, and often provide information that the end user was requesting. Internet directories generate most of their revenue from advertisers and listed participants. Improvements must and will be made to Internet directories in order to increase their accuracy. If they remain as unreliable as they are today, they will receive less visitors and will not be able to justify their current advertising fees. Wireless directory assistance is attractive because it is mobile. Users do not need to be at home or use a public pay phone. Most importantly, the wireless databases are as accurate as wireline databases, and are less expensive.

Another factor in future decreasing revenues will be decreasing access fees. This will be especially true in the national directory assistance market. ILECs currently charge as high as $1.99 per call. AT&T and WorldCom are offering products that charge $1.49 and $0.99 respectfully. Call completion service is included in the prices for AT&T and WorldCom. Most ILECs cannot yet offer call completion service. AT&T and WorldCom offer their one source products to all potential users, not just their subscribers. As more people learn about the products, there will be a migration from the more expensive 1+NPA-555-1212 and potentially multiple-stepped 1+411 products to the more cost efficient and easy to use 10-10-9000 and 10-10-ATT-00 products. This will contribute to the decreasing revenues forecasted to occur in 2007.

In 2004, the directory assistance market is expected to realize its first year of negative growth. It decreases by less than one percent from the previous year. Local directory assistance providers, not only have to overcome regulatory constraints that disallow them from offering call completion service, but they have to make subscribers want to use the service. Frost & Sullivan fully believes that more RBOC regions will be granted 271 Relief, but unless the RBOCs create an attractive pricing scheme, the IXCs' single number DA products (10-10-9000 and 10-10-ATT-00) will continue to restrict long-term growth.

Demand Analysis

The total market demand for directory assistance equated to approximately 5.67 billion requests. These requests are the number of calls made by end users to wireline providers for both national and local directory listings. The total includes both paid for searches and those made as part of a consumer's monthly call allotment. The volume of calls does not include searches conducted over wireless directories, Internet directories, or payphones.

Figure 7 illustrates the anticipated volume levels through 2007. According to the forecast, demand for wireline directory assistance has been declining since 1997. The volume in 2000 is a reduction of over 2 percent from the previous year, and approximately 300,000 less than the total volume in 1997. By 2007, volume for the wireline directory assistance market is expected to drop to 4.78 billion search requests. This is a Compound Annual Growth Rate (CAGR) of negative 2.41 percent.

FIGURE 7

Wireline Directory Assistance Services Market: Demand Forecasts (U.S.), 1997-2007

Year	Call Volume (Billion)	Growth Rate (%)
1997	5.97	---
1998	5.92	(0.8)
1999	5.80	(2.0)
2000	5.67	(2.2)
2001	5.54	(2.3)
2002	5.41	(2.4)
2003	5.28	(2.4)
2004	5.14	(2.7)
2005	5.01	(2.5)
2006	4.89	(2.4)
2007	4.78	(2.3)

Compound Annual Growth Rate (2000-2007): (2.41)%

Note: All figures are rounded; the base year is 2000. Source: Frost & Sullivan

Volume is decreasing for several reasons, the most pervasive being:

- Impact of wireless directory assistance on wireline market
- Emergence and acceptance of Internet directories, especially among commercial users
- Rise of inaccurate listings and non-listings among all types of directory assistance providers
- Strong marketing efforts of carriers to revitalize print directory market

Listings from wireless directory assistance providers are as accurate as wireline listings. This is a result of shared databases, especially among ILECs that offer both wireless and wireline service. Wireless communication is also beginning to be used more frequently as consumers' primary form of communication. It is mobile and less expensive than wireline service. As more individuals purchase wireless service, wireline directory assistance will continue to experience reductions in its volume.

Internet directories are becoming more attractive to end users because they are free. Also, they have excitement and intrigue about them because the Internet is still cutting edge to most people. Additionally, it is getting easier to access the Internet. The boom in DSL and cable modems means that more businesses and consumers have an "always on" Internet connection. The time to access a directory site and retrieve the information is relatively the same as using wireline service, especially for listings with common names. Web directories also include information about commercial listings that end users were going to inquire about. Internet directory assistance providers must and will improve upon their product's accuracy so that they may continue to attract advertising customers. If Internet directories do not improve upon their accuracy rate, then volume for wireline directory assistance will not decrease as forecasted.

Inaccuracy is an increasing trend for all types of directory assistance providers. Private citizens are requesting to have their names omitted from the database of listings. They cite privacy and security as the main reasons for their decision. The result is either an incorrect listing or a "no listing found." This affects wireline providers in addition to wireless and Internet, but since wireline is generally their first source after the phone book, end users become upset faster with wireline directory assistance. This leads to apathy for the service and frustration when they must call the carrier back to get a credit for an incorrect listing. The free searches offered by Internet directories become more attractive when end users become overly frustrated with wireline and wireless directories.

Finally, print directories are on the rise again. Every major ILEC provides print directories to their subscribers. Unless the listing being searched has changed within the year, the print listing should match whatever is disclosed on the wireline directory. Carriers have made a big push recently to increase print directory usage. Carriers are increasing the amount of coupons for business services, free promotions, and larger commercial advertisements for listed participants within their print directories. Private and public organizations are also producing specialty, or niche, print directories. Chambers of Commerce representing racial minorities, religious organizations, and women's groups are producing print directories that include member participants, which also offer incentives to end users.

Pricing Analysis

Overall directory assistance prices have slightly increased over recent years. This is because many local directory assistance providers are including the cost of call completion service within their initial price offering. Call completion is treated as an included feature by many in their directory assistance product. However, in regions where carriers are not including the cost of call completion in their initial offering, prices have decreased.

In the national directory assistance markets, prices are beginning to decrease. The emergence of ILECs entering the national directory assistance market has forced IXC's to either lower their prices or bundle additional features into their initial offering.

The declining prices can be attributed to several factors. Among the most prevalent are:

- Intense competition from wireless directory assistance providers
- Growing acceptance of, and easier access to Internet directories, particularly among commercial enterprises
- Competition among the national directory market has increased due to recent entries by ILECs
- Providers need to increase usage of directory and call completion services

Even where the cost of call completion service is becoming the larger portion of directory assistance fees, carriers are hesitant to increase prices too severely. Their compromises in pricing structures are detailed later in this segment. Pricing schedules are affected by the services offered and by the product being used. The services offered are:

- National Directory Assistance for searches
- National Directory Assistance for call completion
- Local Directory Assistance for searches
- Local Directory Assistance for call completion

Wireline end users now have more options when using directory assistance services. In the national directory market, subscribers can use their ILECs to search for national listings. Among ILECs, the minimum LDA price charged is $0.29 (BellSouth: Tennessee). National searches can reach as high as $1.99. Many IXCs charge $1.99 for use of their 1+NPA product. The majority of 1+411 products, however, charge less than $1.25 per call. AT&T and WorldCom are the first to offer a single number directory assistance product that can be used by customers that do not subscribe to their services. 10-10-ATT-00 and 10-10-9000 both offer national searches and include call completion as part of their service. The prices are $1.49 and $0.99 respectively. These low prices, that include national call completion, are going to place a significant restraint on ILEC prices, especially since the majority of them cannot offer call completion service on national searches. Frost & Sullivan expects one source single NDA products such as AT&T's and WorldCom's to become more common in the market, and lower the price of searches.

Local directory providers are using very successful pricing schedules in an attempt to increase their revenues. Many are raising their fee for conducting a listings search and lowering their call completion charge. Others offer call completion service for free and increase the fee for conducting the search even more. The least successful method of pricing is for providers to offer the two services as separate functions. Following are a few selected examples of pricing schedules:

- Qwest in Arizona: 85 cent charge for search and no charge for call completion
- Qwest in Oregon: 50 cent charge for search and 35 cent charge for call completion
- SBC in Texas: 75 cent charge for search and 5 cent charge for call completion
- SBC in Arkansas: 50 cent charge for search and 30 cent charge for call completion
- SBC in Nevada: 50 cent charge for search and 45 cent charge for call completion

An important factor to note is that states can sometimes influence how much carriers can charge for service. Carriers then have to create pricing schemes that will allow them to generate the most potential revenue while adhering to the laws.

Commercial vs. Consumer Use

Throughout this deliverable there will not be a distinction made between commercial users and consumer users. Many times the numbers or characteristics of each will be combined to produce a total market summary, but it is important for market participants to understand the difference in demand and requirements from the two customer segments. This section addresses the differences in revenue share between businesses and consumer end users. Commercial users are those customers that are business enterprises and that use directory assistance to search for listings related to their business efforts. Consumer users are those that are private citizens using the service out of a residence to search for listings. Figure 8 shows the breakdown of revenue by end-user types.

FIGURE 8

Wireline Directory Assistance Revenues: Consumer vs. Commercial (U.S.), 1997-2007

Year	Consumer (%)	Commercial (%)
1997	38.4	61.6
1998	38.7	61.3
1999	39.1	60.9
2000	39.6	60.4
2001	40.2	59.8
2002	40.8	59.2
2003	41.3	58.7
2004	41.7	58.3
2005	42.2	57.8
2006	42.6	57.4
2007	43.1	56.9

Note: All figures are rounded; the base year is 2000. Source: Frost & Sullivan

Commercial users comprised the majority of revenues for wireline directory usage in 2000. They accounted for 60.4 percent of the revenues for wireline directory assistance. Revenues from consumer users had an increase of approximately 0.5 percent over the previous year. Reasons that explain this general distribution trend include the greater availability of call allowance at the consumer level and the lower local directory assistance price schedules. Commercial enterprises tend to use directory assistance more for national searches than they do for local searches. Another reason for the anticipated decline in commercial revenue is the growing use of Internet directories.

Service providers historically have, and continue to, offer free call allowances primarily to consumers and not commercial subscribers. The greater number of call allowances for consumer subscribers is resulting in lower directory assistance revenues for this segment. Directory assistance providers have been working with state and federal regulatory agencies to reduce the number of call allowances mandated in different calling areas. The anticipated efforts of the local providers is represented in Frost & Sullivan's forecast of consumer directory assistance revenues. Note that in 2007, consumer revenues are expected to account for 43.1 percent of total market revenues. This includes revenues for call completion service.

Businesses are in existence to make money and do not easily accept this double standard of selective call allowances. This, in part, has led to the popularity of Internet directories among business enterprises. Internet directories are typically free of charge to everyone that uses them. Some Internet directory providers offer commercial enterprises special user contracts that allow them to search for a determined amount of listings per month and have access to other services within that web site. These are most often used by companies that are outbound calling intensive. Commercial enterprises, in general, have better Internet access capabilities than consumers. They are more likely than consumers to have DSL or T1/T3 lines that keep them permanently connected to the Internet. This means that it is easier for them to reach the free directories than it is for consumers. This factor will contribute to the decreasing share of commercial revenues that is shown in the figure above.

Today, consumers rely on wireline service until they have expended their call allowances and then defer to print directories for their searches. As prices continue to decrease for wireline services, and more households are created, Frost & Sullivan believes that the consumer share of revenues will increase over time. Another factor that will contribute to consumer share growth is their demand for accurate listings. Print and Internet directories are less reliable than wireline directories. By 2007, consumer revenues are expected to account for 43.1 percent of wireline directory assistance revenues.

Call Completion

Call completion service is the act of the directory assistance provider connecting the end user with the listing he/she requested. It has emerged as the most popular and marketable enhanced service within directory assistance. Directory assistance providers have gone through great measures to publicize this service and increase its usage by end users.

Within the local directory assistance market, several states receive call completion services for free. Qwest offers free call completion services to nine of its fourteen states. It charges 35 cents for the service in Minnesota, New Mexico, and Oregon. In truth, call completion services, when offered as a free service, are included in the price of the search. For instance, Qwest charges an average of $1.11 cents per call to each state in which it offers free call completion service. In the two states that do not offer the service, it charges an average of $0.78 per call, and $0.54 per call in the three states that it charges $0.35 cents for the service. SBC follows the same trend. In its Southwestern Bell area, it charges 5 cents for call completion service to two states where it charges $0.75 cents per call. It charges 30 cents for the service in two states where it charges 50 and 51 cents for local directory assistance. This trend should continue to become more prominent throughout the industry.

This is the main reason why call completion revenues are very hard to determine in the industry. Because they are included in the price of a call, customers unwittingly pay for the service of other subscribers, even if they do not use the service themselves. The cost for free searches that are connected, must be recouped somehow. The easiest way is through the charges received from searches made after subscribers have exhausted their monthly search allowances. Approximately 70 percent of local directory calls are connected by the carrier immediately following the search.

National directory assistance service providers have two products to offer: Single number NDAs such as (10-10-9000, "00" INFO, 1+411) and the standard 1+NPA-555-1212 product. By dialing 1+411, ILEC subscribers can access national listings. If the number requested is out of the ILEC's calling region, the operator will provide the subscriber with the area code to place in the 555-1212 number. 1+NPA-555-1212 charges, on average, up to $1.99 per call and allows for two listings. In addition, most offer call completion service as an add on service. In contrast, "00" INFO charges $1.49 per call with up to two listings and offers call completion at no additional cost. Sprint charges $1.00 for call completion off of its NPA number, after charging $1.99 for using its 1+NPA-555-1212 product. WorldCom charges $0.99 per call and offers two listings and call completion services. Excluding the acceptance numbers of national directory providers that offer free call completion service, the call completion rate is between 7 and 12 percent. Overall, the take-rate at the national level ranges between 20 and 25 percent.

Frost & Sullivan believes that carriers will continue to include call completion as part of their directory assistance service product. By including it in the initial cost and not pricing it as an additional service, subscribers will be more willing to use the service. They believe they are getting something for nothing, when in fact, if they do not agree to the service, they are paying for the call completion service purchased by others.

Competitive Structure

Figure 9 illustrates the current competitive structure in the U.S. wireline directory assistance market. The market consists of national and local directory assistance searches, including call completion service. The number of market participants has decreased from previous years due to the number of competitive local exchange carriers (CLECs) that have dropped out of the market. Subscribers of the failed CLECs were absorbed by their regional ILECs.

In the past, market participants had been segmented into two tiers of competition, sometimes three. This deliverable identifies four tiers of competition. The first tier consists of regional bell operating carriers (RBOCs). The RBOCs control the local directory assistance market, and as of 2000, accounted for over 60 percent of market revenues and nearly 80 percent of the call volume. Despite the presence of CLECs, each RBOC has substantial control of directory assistance revenues in each of their territories. Frost & Sullivan does not foresee any significant threats to the RBOCs that may undermine their dominance.

FIGURE 9

Wireline Directory Assistance Market: Competitive Structure (U.S.), 2000

Number of Companies in the Market	Between 875 and 1000
Types of Competitors	RETAIL ONLY: Incumbent local exchange carriers, dominated by RBOCs. Interexchange carriers (IXCs) dominated by the Big 3 (AT&T, WorldCom, and Sprint). Note: Sprint is also a sizable local directory assistance provider. Competitive local exchange carriers.
Tiers of Competition	Four tiers of competition: Tier 1: RBOCs in the local directory assistance market. SBC, Verizon, BellSouth, and Qwest own the overwhelming majority of the market. Tier 2: The Big 3 in the national directory assistance market. WorldCom, AT&T, and Sprint generate the majority of revenues in the national directory assistance market. Tier 3: RBOCs emerging in the national directory assistance market. The emergence of 1+411 is allowing RBOCs to take market revenues away from the Big 3. Tier 4: (a) CLECs that purchase access to directory assistance databases for their subscribers from ILECs or independent wholesale directory providers. (b) Smaller ILECs operating independently from the RBOCs. (c) AT&T and WorldCom using their single number NDA products to enter local directory assistance markets. (d) Independent call center agencies and bureaus, and other providers of national directory assistance.
Key End-User Groups	Subscribers in the consumer market. Commercial enterprises.
Competitive Factors	Accuracy and reliability of listings and service. Pricing schedules. Ability to offer call completion at attractive enough prices to subscribers. Customer awareness of product availability and features. Product packaging and promotion (10-10-9000, "00" INFO, 10-10-ATT-10).

Source: Frost & Sullivan

The second tier of competitors is comprised of the interexchange carriers (IXCs). AT&T, WorldCom, and Sprint, the Big 3, control the lion's share of national directory assistance revenues and volume. Despite the efforts of RBOCs to offer national directory assistance, the Big 3 will be able to maintain their positions comfortable for several more years. The reason is that they are able to offer call completion on all of their calls, while RBOCs cannot. The RBOCs this time in the national search market, make up the third tier of competition. They offer national directory assistance at lower rates than AT&T's and WorldCom's single number national directory assistance products, but cannot complete the call for their subscribers. Like the ILEC's 1+411 products, 10-10-ATT-00 and 10-10-9000 do not require that a user provide anything but a name and state, but they also do not require that the user be a subscriber to their long distance service. This, and their ability to seamlessly complete the search, will maintain the distinction between Tier 2 IXCs and Tier 3 RBOCs in the national directory assistance market.

The fourth tier of competition encompasses all other market participants:

- CLECs that offer directory assistance by purchasing it wholesale from another source
- Smaller ILECs that function independently from the RBOCs
- IXCs using single number NDA to enter local markets
- Independent call centers and all other providers of wireline directory assistance

Directory assistance is used on a daily basis for a multitude of reasons. Commercial enterprises use the service to contact potential clients or business partners (suppliers, distributors, vendors). Consumers use it to find the numbers for acquaintances and businesses such as restaurants, movie theaters, and retail outlets. Presently, consumers account for 55 percent of all directory assistance searches. Over the forecast period the breakout between consumer and commercial end users is expected to remain fairly consistent. Figure 10 shows the annual proportions of overall market volume between commercial and consumer use.

FIGURE 10

Wireline Directory Assistance Volume: Consumer vs. Commercial (U.S.), 1997-2007

Year	Consumer (%)	Commercial (%)
1997	53.9	46.1
1998	54.3	45.7
1999	54.7	45.3
2000	55.2	44.8
2001	55.8	44.2
2002	56.4	43.6
2003	56.9	43.1
2004	57.3	42.7
2005	57.4	42.6
2006	57.5	42.5
2007	57.7	42.3

Note: All figures are rounded; the base year is 2000. Source: Frost & Sullivan

The driving forces behind directory assistance service acceptance and usage are:

- High ratio of accurate listings
- Attractive pricing of services and features

- Ability to provide call completion service on all calls
- Customer education about the services and features available to them

Figure 11 displays the major directory assistance providers, their products, and product summaries.

FIGURE 11

Wireline Directory Assistance Services Market: Products of Major Participants (U.S.), 2000

Company	Primary Products
AT&T	AT&T 00 INFO. Used by AT&T subscribers. Call completion is offered free of charge to AT&T subscribers. Subscribers pay only their normal long distance rates once call is connected. This product charges $1.49 per call and offers Directory Assistance, Yellow Page Search, Phone Listing Information, and Reverse Look-Up. Non subscribers can call 10-10-ATT-00 and are charged non-AT&T subscriber charges for long distance phone calls. AT&T subscribers using 1+NPA-555-1212 are charged 50 cents per completed call.
WorldCom	10-10-9000. Available to both subscribers and non-subscribers. 99 cents for two listings. Subscribers pay regular calling plan rates once connected. Non-subscribers are charged 10 cents per minute. No Reverse Look-Up. Not available on cell phones. WorldCom subscribers using 1+NPA-555-1212 are charged a fee for call completion.
Sprint	Offers service for both local and national listings. Each national listing call is $1.99. Local prices vary by state; average is 45 cents per call. Also offers 1+NPA-555-1212 service. Local subscribers can dial 1+411 to access national listings.
Verizon	Offers 411 service for both local and national listings. National listings (two per call) range of 95 cents and $1.25 per call. Local listings range 25 cents and 95 cents per call. Average of 4 free calls per month to each state.
Qwest	Qwest 411 Directory Assistance. National listings range of 85 cents and $1.25 per call. Local listings range from 50 cents to $1.25. Call allowances not offered in every state.
BellSouth	Offers both local and national directory assistance. National searches average less than a dollar.
SBC	1+411 service. Reverse dial-up. Two local listings per call.

Source: Frost & Sullivan

Market Share Analysis

Overall industry revenues for the U.S. wireline directory assistance market grew to a very health $3.38 billion in 2000. This total is representative of all revenues, for both national and local directory assistance services. These services include directory searches and call completion services. Local directory revenues accounted for nearly 63 percent of total market revenues. Figure 12 shows the market share analysis for the retail directory assistance market.

FIGURE 12

Wireline Directory Assistance Services Market: Company Market Share by Revenues (U.S.), 2000

Company	2000 (%)
SBC	21.3
Verizon	18.2
AT&T	13.5
BellSouth	8.8
WorldCom	8.2
Sprint	4.1
Qwest	3.8
Others	22.2

"Others" include All other ILECs, IXCs, and CLECs that offer wireline directory assistance. A partial list of carriers include: ALLTEL, Broadwing (Cincinnati Bell), CenturyTel, Citizens Communications, Concord Telecommunications, Farmer's Telephone Company, Frontier (Global Crossing), Hamilton Communications, ICG Telecommunication, Peoples Telephone Company, Roseville Telephone Company, Southern Colorado Telecommunications, and Toledo Telephone Company.

Note: All figures are rounded; the base year is 2000. Source: Frost & Sullivan

SBC, the leading local directory services provider, accounted for over 21 percent of the total market. Like other RBOCs, it has expanded its directory assistance service to the national directory market. SBC, through acquisitions, is the regional provider for 13 states, including two of the most populous states in California and Texas. SBC's large local customer base and entry into national directory assistance make it the market leader.

Second in the market is Verizon. Verizon, the product of the Bell Atlantic and GTE merger, has grown its customer base over the last few years to become the number one local voice provider. It is second to SBC, primarily because it offers more call allowances to its subscribers than SBC does. More call allowance means that fewer calls will be made to generate revenues.

AT&T is the largest national directory assistance provider in the market. Its high subscriber base and "00" INFO product contribute to its success in the market. Realizing that its competitors were charging up to $1.99 for a national directory search and as much as $1.00 for call completion, AT&T decided to create a product that would address customers concerns about functionality and price. It created "00" INFO for its subscribers and 10-10-ATT-00 for non subscribers. The two variations of the same product charge $1.49 per call, and allow two searches per call. They also offer reverse searches (using a phone number to find a person or address), yellow page search, and call completion; all include in the same base price of $1.49. AT&T is attempting to attract subscribers from their competitors to use its service to increase its own revenues. 10-10-ATT-00 can also be used as a marketing tool to acquire long distance service customers from its competitors.

BellSouth is the regional provider in nine states. It has the lowest average national directory assistance charges of any major ILEC (average of 91cents). It is followed closely by WorldCom's 10-10-9000 product. That product costs $0.99 per use. WorldCom, like AT&T, has created a one source single number directory assistance product that can be used by subscribers and non-subscribers alike. Its product cannot be used by every telephone from a commercial enterprise. It does, however, allow for two searches per call, and will connect a call free of charge. If the user is a subscriber, then normal long distance charges will apply. Non-subscribers are charged 10 cents a minute if they choose to allow WorldCom to carry the call.

Qwest provides service to the most sparsely populated region of the U.S. It is the regional provider for the western part of the country, less California, and parts of Nevada. As such, it is understandable that its volume and, therefore, revenues are less than the other RBOCs. In an attempt to increase revenues, it has lowered its number of call allowances across its region. It offers call allowances to only five of its fourteen states. Besides low population, another factor that may be contributing to Qwest's low revenues is that, among the RBOCs, it charges the highest average price for local directory assistance calls; $0.90.

Strategic Recommendations

Through secondary and primary research, Frost & Sullivan has attempted to ascertain the important factors that influence revenue generation in the market today, and identify the opportunities that may allow providers to increase their revenues in the future. This segment attempts to provide market participants with ideas and strategies to improve their market position and increase usage of their product.

Call Completion Service as Revenue Generator

Perhaps the greatest opportunity for wireline carriers is to actively exploit call completion services. This can be done in two ways:

- Increase marketing efforts to make users less reluctant to use the premium service
- Include the cost of call completion service in the price of its directory assistance product

Currently, those carriers that offer call completion as an additional service have a smaller acceptance rate among their users than do the carriers that include the service in their initial product price. Providers have already been successful in having users continue to use their directory assistance products even after they have exhausted their monthly call allowances. They must now create ways to have users agree to pay for call completion services. A possible method would be to offer a certain number of free call completions per month; perhaps the same number as the monthly call allowances or one completion below the number of allowances. This would train the users to use the service due to its simplicity and convenience. Perhaps by catering marketing efforts to focus on high income users or on heavy directory assistance users, providers can increase subscriber acceptance and revenues. Another method of increasing call completion usage might be to lower the rates for the service. This plan segues into the second method list above: include the cost of the service in the price of the initial call for listings.

By looking at the rate sheets for Qwest's directory assistance service, it is easy to recognize that call completion costs are built into its normal directory assistance service. It offers free local area call completion service to nine states in its fourteen state region. In those nine states, the average cost for directory assistance is $1.11 per call. In the two states where call completion is not offered, users pay $0.78 per call; and in the three states where users pay 35 cents for call completion service, they only pay $0.54 per directory assistance call. It is easy to deduce that many directory assistance pricing schemes already include the cost of call completion. It may make more sense for carriers to lower their directory assistance fees and increase the amount of call completion service. For instance, Qwest may get more directory assistance revenue from searches if the did not include all or part of the cost of the call completion service in their offering. Charging $0.95 for a directory search and only 16 cents for completing a call may decrease some of their revenue on call completion service, buy may still increase overall directory revenues.

Still other carriers such as SBC, who charges up to 45 cents per call completion, may look at including the cost of that service into their initial directory assistance product. In Nevada, SBC charges 50 cents for directory assistance and 45 cents for connecting the call. Combining the two service costs only makes the cost 95 cents per call. This is nearly 17 percent lower than what Qwest charges most of its users. By including both service in the initial price offering, carriers may experience an increase in their call completion usage but are in danger of experiencing a reduction in directory assistance usage. Users who do not ordinarily use the call completion service may resent being forced to use the service in order to get the most out of their money. Directory assistance providers should investigate which of these two methods should be used to accomplish the same goal.

Improving Customer Service to Increase Usage of Directory Assistance Services

Another strategy to employ is increasing customer service standards. Whether it be through additional training or advanced computer automation, provision of accurate listings is not the only thing that providers are being judged on. Users want to be treated with respect and not rushed through the process. If they are rushed and receive a bad listing, they will be less likely to use the service again than if they were afforded every courtesy before receiving the error. Automation does not mean that live operators should not be accessible. They must be available for complaints, corrected listings, or because the user prefers to speak with a live person. Live operators must be polite, confident, and focused on providing the best customer service available. Providers should instill in their operators the belief that their job is important and very valuable, not only customers, but to the provider as well.

Creating and Migrating Users to One Source Single Number NDA Products

The majority of national directory assistance users are not aware of the one source single number products offered by AT&T and WorldCom. Many users still use 1+411 or 1+NPA-555-1212 to find national listings. These numbers, for now, may still contain an excessive number of steps to make them convenient for end-users. 1+NPA numbers necessitate that users know the area code before they make the call to search for the listing. A large part of national directory assistance calls are made because the users do not know the area code to begin with. They must determine the area code by first dialing 1+411 and stating the city and state they wish to contact. If the operator cannot complete the search, he/she then tells the end-user the area code(s) to dial when calling the 1+NPA number. Some cities, because of their large populations, have multiple area codes. The user has to call each area code plus 555-1212 to find the listing. Additionally, after completing all of these steps, the carrier may not be able to complete the call for the end user.

"00" INFO allows AT&T subscribers to simply dial "00" and they will be connected with an operator that will search the national directories for the number being sought. It is simple and much more convenient than the alternative process. AT&T and WorldCom also offer this service to non-subscribers. Non AT&T subscribers can dial 10-10-ATT-00 to receive the same service as "00" INFO users. 10-10-9000 from WorldCom can be used by any wireline customer. Both services offer call completion service as part of their service.

Directory assistance providers must seriously investigate the possibility of offering a one source single number national directory assistance product. This strategy would allow SBC and Verizon, the two largest RBOCs, to prevent AT&T and WorldCom from stealing revenues from them. SBC and Verizon, to date have been granted 271 Relief in six states. This means that they can now provide the long distance service between their local subscribers and the national listings they search. Between the two of them they have over 50 million subscribers. This is an excellent opportunity to increase their directory assistance revenues.

For all ILECs, including SBC and Verizon, a one source single number NDA that does not require the user know more than the name and city of a listing and seamlessly completes the search, would not only provide a better product service, but dissuade their subscribers from using AT&T or WorldCom for their national searches. Carriers in states where 271 Relief has not been granted, would be able to at least increase their possibility of receiving revenue from directory assistance, even if they could not provide long distance service. Currently their single number products allow them to offer seamless searches to their subscribers, but they are not able to provide their service to non subscribers or complete calls on national searches.

ILECs can also use their current single NDA products to target commercial enterprises. AT&T and WorldCom's products are not widely available to businesses. If a regional carrier could devise a way to make a single NDA product accessible to every business, it would have an enormous advantage over its inter-region national directory assistance competitors.

Implement Product Improvement Strategies

Following the example of wireless directory assistance services, which offer enhanced features to the callers, the wireline providers must also take product development/enhancement initiatives that would help revive telephone directory assistance usage.

Enhanced directory assistance which encompasses services such a movie listings, stock quotes, weather information, category searches, reverse searches, and many others are increasingly being deployed in the wireless directory assistance market. In the wireline directory assistance market, AT&T's "00" INFO is the only product that has made significant marketing campaigns to promote its limited enhanced services.

For RBOCs, their provision of enhanced services is to a large extent dependent on the changes in regulations. Unlike IXCs, RBOCs are prevented from offering a number of enhanced services, including national yellow page searches. Similarly, compared to the wireline markets, the wireless sector is subject to much less regulatory constraints, therefore is able to offer a number of enhanced directory assistance services that wireline providers cannot offer. Unless the RBOCs satisfy the criteria set forth by the FCC regarding the opening of local markets, they would continue to face regulatory hurdles which would prevent them from offering certain services. For carriers such as SBC and Verizon, which were granted 271 Relief in multiple states, it is one step forward in the provision of enhanced directory assistance services including interLATA call completion.

Investigate the Feasibility of Offering Voice Portal Services

Voice portals give providers the opportunity to provide basic and enhanced directory assistance products to subscribers with minimal investment costs from the provider. Voice portal services are relatively straightforward to deploy and offer many opportunities to carve out a singular niche in the market. Existing portal and Web site operators maintain huge databases and can support telephone applications with minimal investment.

Additionally, technology has evolved, with ASR in particular making dramatic advances, powered in large measure by huge increases in processing power. The adoption of a standard voice-scripting language, such as voice extensible markup language (VXML), can be expected to fuel voice portal services, just as hypertext markup language (HTML) fueled development of the Internet. At the same time, the cost of creating a speech-based portal platform continues to decline. Increasing densities and decreasing costs on the voice processing and network interface hardware that form a central part of a voice portal system allow service providers to serve more users at less cost. Finally, the Internet has raised public expectations, with people growing used to having information at their fingertips when they want it. Once people get accustomed to immediate news, weather reports, movie listings, or stock quotes over the Internet, the transition to the phone makes perfect sense.

Create Marketing Campaigns and New Products to Increase the Use of Wireline Directory Assistance Services

Internet directories are stealing market share away from wireline directory assistance providers. Wireline providers must counter their competitors' emerging popularity with an educational promotion aimed at scaling down the "hoopla" of the Internet services. Wireline providers should stress the unreliableness of electronic directories. They are not updated as often as ILEC and IXC databases are, and often do not use the most up to date resources to update their listings. ILECs update their listings every night, and own the databases, so they are assured of their accuracy. Additionally, accessing Internet directories in the consumer market is much more involved than using wireline service. Wireline providers should stress that by the time consumers have logged on to the Internet and typed in a directory web site, they would most likely have been connected to their searched listing by a wireline provider. Additionally, using the Internet does not change the fact that end users will still have to use a telephone to contact their searched listing.

A new product that can be offered is a "personalized" directory assistance service for subscribers. Using the carriers own pricing plans, subscribers can create their own telephone directories for numbers they often call or that should be readily available. This service is not so much for when the subscriber is at home, but rather when he/she is away from the house. By dialing into the directory assistance service and then entering a numerical password, the end user can access his/her entire database of listings. The subscriber can even choose to have the call completed by the carrier. This is an excellent opportunity to increase revenues and provide exceptional customer service. Many wireless and PDA end users have some type of service similar available to them. Wireline providers would enter this market with the advantage of not forcing users to buy additional equipment; all they would need is access to a wireline phone.

WorldCom: Brand Awareness Development

This award is given to the company that has demonstrated the best brand awareness development strategy in the marketplace. The recipient company has exhibited excellent comprehension of competitive market position and has understood the benefits of building brand recognition. The company has also invested heavily in order to build brand awareness and create brand recognition, which has enabled the establishment of customer loyalty. Brand awareness development strategy has greatly contributed to the company's image, market share, and profitability. The award recipient has dominated in the areas of customer loyalty, superior brand recall, higher margins, and other competitive advantages, such as trade leveraging and brand extensions.

WorldCom is the recipient of the 2001 Frost & Sullivan Market Engineering Award for Brand Awareness Development in the wireline directory assistance market. Under its MCI brand name, WorldCom's successful campaign to promote its 10-10-9000 directory assistance product has increased revenues not only from its current customers, but from non subscribers. Numerous television, print, and radio advertisements, using highly recognizable celebrities, have popularized the service and made it as ubiquitous as dialing 411. More importantly, WorldCom, unlike most directory assistance providers has committed a large advertising and promotion budget to popularize its single number product. It is viewed at WorldCom's corporate level as just as important as local and long distance service. It is not considered to be a "throw in" or mandatory service by WorldCom. It is considered to be a bonafide revenue generator and is treated as such.

10-10-9000 is available to every U.S. caller at the universal rate of 99 cents per call. Callers may request two listings during each call. There are no call completion, or connection, fees; and WorldCom subscribers receive their regular calling plan rates when connected. Non subscribers are only charged 10 cents per minute after being connected. That charge will appear on their local telephone bill.

By stressing in their advertisements that anyone can use 10-10-9000, WorldCom has experienced an increase in its usage, their directory assistance revenues, and position in the market. Additionally, WorldCom has effectively kept prices lower than what most RBOCs charge their subscribers for national calls. This encourages non subscribers to use 10-10-9000 rather than their own carrier's service.

AT&T: Product Service Innovation

This award is presented each year to the company that has best demonstrated the ability to develop and/or advance its product service programs with more innovative qualities than competing vendors and their product service plans. Such innovation is expected to make significant contributions to the industry in terms of product performance and customer loyalty.

AT&T is the recipient of the 2001 Frost & Sullivan Market Engineering Award for Product Service Innovation in the wireline directory assistance market. Its AT&T "00" INFO product surpasses all other directory assistance products in services and benefits offered to subscribers. Not only does it offer regular directory assistance (name, address, city, or zip code), but it offers reverse lookup, and a yellow page search. Additionally, subscribers are entitled to three listing searches and free call completion. Most other directory assistance providers only allow two searches.

AT&T "00" INFO also allows for reverse searches. Subscribers can call with only a telephone number and obtain the corresponding person's name and address. This service is not offered by every directory assistance provider. The factor that really sets this product apart from the others is the ease of which the service can be accessed. Subscribers need only dial "00" from their telephone to be connected with a live operator. Other carriers provide multiple digit numbers that require the subscriber to know the area code of the intended call recipient (1+NPA-555-1212) and most times experience some interaction with an automated system. AT&T is providing the most customer friendly directory assistance product in the market.

Verizon: Pricing Strategy in Local Directory Market

The Frost & Sullivan Market Engineering Award for Pricing Strategy is bestowed each year upon the company that has demonstrated excellence in pricing strategy within their industry. The award recipient has distinguished it from competitors by pursuing a unique and enterprising pricing strategy. This company, through its differentiated pricing approach, outperformed industry competitors and defined industry leadership standards.

Verizon is the recipient of the 2001 Frost & Sullivan Market Engineering Award for Pricing Strategy in the wireline local directory assistance market. Verizon has distinguished itself by offering the lowest priced services, while maintaining high accuracy and customer service standards. As an RBOC, its subscribers are targeted by national directory assistance providers, Sprint, WorldCom, and AT&T. Sprint is directly competing with Verizon in three states. Both AT&T and WorldCom offer directory assistance programs that are available to all consumers, regardless of the carrier.

AT&T charges $1.49 per call in their AT&T 00 INFO program and offers services other than basic directory assistance. WorldCom charges 99 cents per call and provides basic directory assistance. It does, however, promote a product that is accessible to anyone by dialing a simple and easy to remember number. Verizon is battling this by providing an average of four free calls to each of its subscribers per month (AT&T and WorldCom do not offer free searches) and offering the lowest overall prices for usage. Its local fee averages 39 cents per call, with its maximum charge at 65 cents.

Verizon is able to offer these low prices because, like most ILECs, it owns the listings and employs an in-house call center. IXCs usually do not own the listings and must purchase them from other resources, including RBOCs. In the end, Verizon is able to offer the most in-demand service that its subscribers expect from directory assistance, and can offer it at lower prices compared to other industry participants.

SBC: Market Engineering Leadership

The Frost & Sullivan Market Engineering Leadership Award is given to the company that has exhibited market share leadership through the implementation of market engineering strategy. The recipient has displayed excellence in all areas of the Market Engineering process, including the identification of market challenges, drivers and restraints, as well as strategy development and methods of addressing these market dynamics. Furthermore, the award recipient has continually demonstrated solutions for monitoring market changes and for implementing superior market engineering strategies. By utilizing these strategies for success, the company has established itself as the market share leader in its respective industry.

SBC is the recipient of the 2001 Frost & Sullivan Market Engineering Award for Market Leadership in the wireline directory assistance market. SBC has distinguished itself as the market share leader in the directory assistance market. Primarily a local service provider, SBC originally improved its market position by key acquisitions. By adding Ameritech and SNET to its family of formerly independent ILECs, it has been able to reach more subscribers and increase its revenues. Additionally, it is fully utilizing its ability to charge fees for call completions to improve its revenues.

A trend that most ILECs are following is to provide national directory service. SBC is also a leader in this field. Its 411 service now allows its subscribers to search for national listings. Simply by its pure subscriber base numbers (second only to Verizon) SBC has the ability to increase the number of national listing requests to make a sizable penetration of the national market. Increased marketing efforts and outstanding brand recognition will help SBC position itself as a total market leader for years to come.

BellSouth: Pricing Strategy in National Directory Market

The Frost & Sullivan Market Engineering Award for Pricing Strategy is bestowed each year upon the company that has demonstrated excellence in pricing strategy within their industry. The award recipient has distinguished it from competitors by pursuing a unique and enterprising pricing strategy. This company, through its differentiated pricing approach, outperformed industry competitors, and defined industry leadership standards.

BellSouth is the recipient of the 2001 Frost & Sullivan Market Engineering Award for Pricing Strategy in the wireline national directory assistance market. BellSouth has the lowest prices for national directory assistance in the entire market. It is substantially below IXCs' average price and below the 95 cent average of Verizon. In 44 percent of its states, subscribers pay only 85 cents per national search. In the remaining states, subscribers pay an average of 96.5 cents per call.

BellSouth is also threatened by AT&T and WorldCom, which offer national directory assistance to any user in the U.S. Its pricing strategy has allowed BellSouth to gain market share in the national directory assistance market. The low pricing offers compensate for BellSouth not being able to offer call completion or other services that AT&T and WorldCom offer.

LOCAL DIRECTORY ASSISTANCE SERVICES MARKET

Introduction

INTRODUCTION TO THE WIRELINE LOCAL DIRECTORY ASSISTANCE SERVICE MARKET

The U.S. retail wireline local directory assistance (DA) services market generated $2.12 billion in revenues in 2000. While this is a revenue increase from the previous year, its growth rate is steadily declining. The growth rate for 2000, 2.7 percent, was over a full percentage less than the previous year's growth rate. This is a trend that is expected to continue throughout the forecast period (2000-2007). Figure 13 shows the decreasing demand of local directory volume in relation to the total market. In 2000, local directory assistance accounted for 79.4 percent of all directory assistance searches. By 2007, local directory assistance's share is forecasted to decrease by nearly 12 percent.

FIGURE 13

Wireline Directory Assistance Market: Volume Share--NDA vs. LDA (U.S.), 1997-2007

Year	NDA (%)	LDA (%)
1997	16.5	83.5
1998	17.5	82.5
1999	19.0	81.0
2000	20.6	79.4
2001	22.5	77.5
2002	24.3	75.7
2003	26.1	73.9
2004	27.8	72.2
2005	29.4	70.6
2006	31.0	69.0
2007	32.4	67.6

Note: All figures are rounded; the base year is 2000. Source: Frost & Sullivan

The decrease in the demand for local directory assistance searches and revenues can be attributed to the following factors:

- Competition from wireless service
- Substitution rate from print directories will decrease

Local directory assistance providers are faced with intense competition from wireless directory assistance providers. Wireless services and calling plan fees are rapidly declining. More subscribers are beginning to use their wireless phones as their primary telecommunication method and scaling back on consumer wireline service. Additionally, most often wireless directory assistance searches and call completion service are either free or offered at much lower rates than wireline services. In general, local carriers charge more for searches that include call completion for free, than they do for searches where call completion service is treated as a separate product.

Additionally, wireless database listings are as accurate as wireline listings. This is because many of the wireline directory assistance providers also provide wireless directory assistance as part of their wireless segment offering. Verizon, Sprint, and SBC/BellSouth have very successful wireless business segments and offer equally high directory assistance service levels to both groups of customers.

Wireline directory assistance is still considered a luxury among many end users. While prices have decreased over the last few years, they are still more expensive than the price for listings in print directories, free. Print directories are the standard for finding local numbers of residences and businesses. The directories also provide more information than wireline directories. Businesses listed in print directories can choose to display an advertisement about their business. They can place their hours of operations, a map of where they are in the city, and a brief summary of the products they offer. These are the things that most people call up businesses looking to find.

The key challenges faced by the wireline directory assistance industry include:

- The abundant use of wireless communication is limiting the growth of wireline directory assistance revenues.
- Providers must meet the subscribers' demand for accuracy by constantly updating and correcting listings.
- Rising operator costs are forcing providers to increase prices for service, which has detrimental affect on usage.
- Reducing the number of monthly call allowances, yet still attracting end users.
- Implementing and sustaining a long-term, successful customer service initiative.

DEFINITIONS

Revenues in the wireline local directory assistance market include all monies received by the service providers from the provision and usage of local directory assistance services by commercial and consumer customers. Additionally, revenues from call completion services are also included in the market forecasts. Wireline refers to the copper wires used to connect subscribers to the person or enterprise that they are calling. Revenues from wireless, Internet, print directories, and wholesale services are not included in this deliverable. National directory assistance revenues, either generated by ILECs with their NDA products or by single number NDA products that were used for local searches, are not included in the revenue forecasts.

Independent agencies are categorized as companies that provide directory information to directory assistance providers. They do not include wholesale companies that provide directory assistance service for a carrier's subscribers. Independent agencies only provide information for the carrier's directory database.

The volume forecasts for the local directory assistance market are based on the annual number of queries for these services by the commercial and consumer customers. The volume forecasts include both free directory assistance calls (monthly call allowances) and paid directory requests. Payphone and international directory assistance volumes are not included in the forecasts.